

PATENT COOPERATION TREATY

PCT

REC'D 16 FEB 2005

WIPO

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P 20360 PC	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/NO2003/000377	International filing date (day/month/year) 10.11.2003	Priority date (day/month/year) 12.11.2002
International Patent Classification (IPC) or national classification and IPC E21B 19/09		
Applicant National Oilwell Norway AS et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

Date of submission of the demand 05.04.2004	Date of completion of this report 27.01.2005
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Christer Bäcknert / MRO Telephone No. +46 8 782 25 00

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO2003/000377

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO2003/000377

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-2</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-2</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-2</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The International Search Report cites the following documents as being of particular relevance:

D1: EP1103459 A1

D2: US 5846028 A

The invention regards a two-part telescopic tensioner for connection to a riser extending between a borehole and a floating installation on a subsea oil or gas field. The purpose of the tensioner is to maintain tension in the riser, due to wave and wind action on the floating installation. Two standard telescoping units are connected together and coupled to the upper end of a riser extending vertically from the borehole to the floating installation.

D1 discloses a tensioning device for a riser (6) connecting a subsea borehole with a floating installation (16) on the surface of the sea, where the tensioning device is provided with telescoping tubes (8) and also several evenly spaced hydraulic cylinders (2, 10) arranged in a peripherally encircling manner and mainly in the longitudinal direction of the riser, and where the tension in the riser is exerted through hydraulic pressure in said cylinders (2, 10). Further, the tensioning device consists of two successive, interconnected telescopic tensioning units (7, 3).

D2 discloses another riser tensioning device of generally the same type as shown in D1.

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

A strict interpretation of the wordings of the claims leads to the conclusion that the claims lack novelty and an inventive step in relation to the disclosure of either document D1 or document D2.

However, when the disclosure of the description and drawings, as well as the response to the written opinion, are taken into account, the interpretation of the claims are somewhat modified. Thus, it is now understood that "the tensioning device consists of two successive, interconnected telescoping units (23, 25)" is supposed to mean that one tensioner is located on top of the other and that "the tensioning units (23, 25) being designed separately to maintain a prescribed tension in the riser" to mean that each tensioner is designed to be able to maintain the prescribed tension in the riser, on its own, should the other tensioner fail. The response to the written opinion also points out that the tensioning unit is supposed to be integrated in the riser. It is not entirely clear that this feature is indeed included in the claims, though from the description and the drawings, it seems to be an intended feature of the invention.

Thus, even though the claims are not entirely clear as to the subject matter of invention, an interpretation of the claims along the outlines stated above results in the conclusion that the claimed invention meets the criteria of novelty, inventive step and industrial applicability.